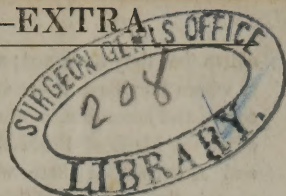


DEFENCE



Of Dr. Sewall's work on the Pathology of Drunkenness, and his Drawings of the Human Stomach, as affected by the use of Alcoholic drinks, from health to death by Delirium Tremens.

TO DR. THOMAS HUN :

Dear Sir—Your second number is a frank, fair and manly expression of opinions, and though differing entirely from some of the opinions expressed; and though grieved to see talent so full of promise directed to the encouragement of a practice which appears to me to be full of danger to all, especially to the young, still, after the discourtesy which I have sometimes received from those with whom it has been my misfortune to differ, it is refreshing to meet an opponent in whose manner there is so much to commend, and so little to be dissatisfied with; and I cannot but indulge the hope, that a mind so discriminating and ingenuous, on farther acquaintance with the principles of total abstinence, and the facts and arguments in favor of it which exist, will come to the conclusion that such abstinence is, after all, not undeserving of the approbation of intelligent, humane and patriotic, as well as Christian men.

In stating the question at issue, you say, "According to Dr. Sewall, the disease of the stomach, which reaches its greatest intensity in the confirmed drunkard, begins already in the temperate drinker; or, in other words, temperate drinking gives rise to a disease of the stomach which differs in *degree* from that produced by intemperance, but which runs into it by an insensible gradation. Such I understand to be the meaning of his plate I, fig. 2, and of the remarks concerning it in the Enquirer."

This strikes me as a fair statement, and as sufficiently explicit; and the question arising out of the same is, *whether the temperate use of intoxicating liquors tends to produce diseased stomachs, of which stomachs a certain print is assumed to be a fair example.*

The print in question is sufficiently defined: it is No. 2; and that there may be no mistake as to the definition of the *temperate drinker*,

to belong, I remark that, so far as this discussion is concerned, it is *such a drinker* as is described by Dr. Sewall himself in the Enquirer, as above referred to. The doctor's words are: "In fig. 2 of the same plate, we have exhibited the internal surface of the stomach of the temperate drinker, the man who takes his glass of mint sling in the morning, and his toddy on going to bed; or of him who takes his two or three glasses of Madeira at his dinner. And here the work of destruction begins. That beautiful network of blood-vessels, which was invisible in the healthy stomach, being excited by the stimulus of alcohol, becomes dilated and distended with blood, visible and distinct."

I affirm that such temperate drinking as is here described, does produce the inception of disease indicated by plate I, fig. 2, which disease is fully developed by drunkenness, as exhibited in plate No. 3. This I understand you to deny.

That you have stated the question fairly and with sufficient plainness, is admitted; and it is admitted that you are entitled to "an answer without equivocation."

You commence your argument for the negative thus:

"In the first place, I affirm that no *satisfactory* observations have been made to establish the difference, (that is, the difference between the stomach of the temperate drinker and the teetotaller,) if it really exist."

You do not affirm that *no observations* have been made, but that "no *satisfactory* observations have been made."

Now, whether the observations made are satisfactory or not, depends upon their apparent credibility in view of the person contemplating the same. Observations quite satisfactory to some individuals, may be quite unsatisfactory to others. That the observations actually made, have not been satisfactory to

affirm that they have not; still there are others to whom they have been satisfactory; and to some, and not a few, of the most distinguished of the Medical Profession both in Europe and America, as there will be occasion to show in the sequel. But though no observations had heretofore been made, and the discoveries of the disease in question, and the visible manifestations thereof were confined to the 19th century, as you affirm the same to have been; still, it would not follow that the discoveries in question, were either the less true, or the less important on that account. "Is it not preposterous to suppose," you ask, "that Doctor Sewall, could find in a small city like Washington, the materials for the solution of this problem?" Now, however preposterous it may seem to suppose this, it may notwithstanding be the fact. That thirty years devoted to the same pursuit, should be crowned with some success, is neither very singular, nor surprising, especially when it is considered that during that period St. Martin, the Canadian boy, whose stomach, by a singular Providence laid open to view, was brought to Washington by Doct. Beaumont, whose experiments, the most interesting ever made, Doct. Sewall enjoyed the advantage of witnessing. Other and greater discoveries than the discovery in question, have often been brought to light in a much shorter time, and by individuals residing in a smaller city than Washington.

As if, however, these years so spent, under such advantages, had eventuated in no favorable results, you farther say, "It would appear from Mr. Delavan's statement, that Doct. Sewall collected the materials and had a plate," (to wit: No. 2.) "made within the short time which elapsed between Chancellor Walworth's suggestions and the publication of the work. Now, if this does so appear, it certainly so appears contrary to truth, these drawings all having been made from actual previous dissections. In support of your assumption to the contrary, however, you further say, "If it (the temperate drinker's stomach) was made from prior observations, it is rather wonderful that he did not send it on at first." Now, it would have been much more wonderful if he had: and for the best reason in the world, it had not been required. Was it not just as wonderful that he did not send on plate No. 1, the plate of the healthy stomach, suggested by Doctor Nott, before it was required, as it was that he did not send on plate No. 2, the plate of the

temperate drinker's stomach, before that print was required? And if the not sending on the temperate drinker's stomach, till it was required, proves that it was made to order, then the not sending of the healthy stomach till it was called for, also proves, that it too was made to order—and yet, when required, it was not made, but copied from a work which had previously been before the public.

In confirmation of the "inaccuracy" of print No. 2, which you erroneously assume to have been made to order, and not from previous observations, you say, "Of course the records of medical science could afford him no assistance, for no one ever supposed that the stomach of the temperate drinker was necessarily diseased."

Here is a statement of a fact: "The records of medical science could afford him no assistance," (in furnishing a drawing of the temperate drinker's stomach;) and the reason why they could not, is contained in the statement of another fact, to wit: "for no one ever supposed that the stomach of the temperate drinker was necessarily diseased." w, how far this latter fact is sustained by the evidence in the case, we shall see in the sequel. And as to the former fact, I apprehend "the records of medical science," which you say, "could afford him (Dr. Sewall) no assistance" in furnishing a drawing of the temperate drinker's stomach, could, notwithstanding, had it been required, have afforded him just as much assistance in furnishing that drawing, as it could in furnishing the drawing of the confirmed drunkard's stomach, given in No. 3, had that drawing been required; which stomach you admit to be, as well as the other organs, "in the highest degree of disease."

Now, I ask, was the stomach of the confirmed drunkard (a stomach admitted to be "in the highest state of disease") ever drawn and published, till drawn and published by Dr. Sewall? If so, you will have the goodness to inform me through the press, or otherwise, when and where, or by whom, in what work of Pathology of Drunkenness, or other work it can be found?

When I was told by a distinguished physician in New-York, "*Get the drawings of the human stomach as affected by intoxicating drinks, and exhibit them to the world, and your work is done up;*" that physician, as did another whom I consulted, and who promised to furnish the same, spoke of the work, not as

a work that had already been done, but that still remained to be done. If such drawings existed at the time, these physicians were ignorant of it, and I am still ignorant of it. And if such drawings did exist previous to those in question, I am the more desirous to be informed of the fact, as I shall then be able, as will others, to compare the former with the latter, after which all will, by the possession of additional data, be the better able to decide according to *truth*.

"To the 19th century," you say, (and I believe truly say,) "belongs the discovery of this fact, on which the whole temperance reformation hinges;" and the reason is apparent. It was not till the 19th century that the public attention was particularly directed to the Pathology of Drunkenness; for it was not till this century that an improved chemistry lent its aid to the adulteration of intoxicating liquors through the agency of "Jackson, an English chemist of notorious memory." After which adulteration, such were the increased and fearful effects produced by intoxicating liquors, as to force the consideration of this subject, not only on physicians in Europe and America, but also upon the British Parliament itself. A committee was appointed to inquire into the facts of the case. That inquiry resulted in the collection and presentation of such a mass of incontrovertible and appalling evidence, in relation to the destructive influence of the intoxicating liquors generally in use, (sustained, as it was, by similar evidence no less appalling, collected and presented on this side the Atlantic,) that the public mind in both countries became roused to a sense of the danger; and great and good men, of all professions, and of all parties, having tried in vain to arrest the progress of the evil by that same temperate use of these poisons which you now recommend, girded themselves up to the higher and holier self-denial of entire abstinence, which you disapprove; but which, though originating in the 19th century, has already, though that century has not half expired, conferred more blessings on mankind than have been conferred in the same time by any mere human effort, the results of which are recorded on any page of this world's history.

Now these thirty years, during which the attention of Doct. Sewall has been directed to the pathology of drunkenness, covers nearly the whole of that period, during which the public attention has been particularly direct-

ed to the present inquiry, so that, were there no concurring testimony in favor of the discoveries he professes to have made in relation to the baleful effects of the temperate use of intoxicating liquors, his own testimony would not deserve to be discredited on that account. But so far is this from being the case, that many of the most distinguished physicians and surgeons, on both sides of the Atlantic, have, as I trust I shall be able to show, made the same discovery, and avowed the same opinion; though the fact that they have done so, may not have come to your knowledge—and the reason why it has not, is, I presume, that your attention has been directed less to the total abstinence question than to other questions, having been absent from the country much of the time during which the discussion of that question has been in progress here.

Notwithstanding these thirty years devoted to pathological inquiries by Doctor Sewall; notwithstanding the advantages enjoyed by him of witnessing the experiments of Doctor Beaumont, you infer from the following hypothetical premises, to wit: That No. 2 was made to order; "and that Doctor Sewall collected the material, and had the plate made within the short time which elapsed between Chancellor Walworth's suggestion, and the publication of the work;" which premises, however, were entirely contrary to fact, still you infer therefrom, that "It may be safely affirmed that this plate is not founded on a series of observations; that consequently it must be founded on *a priori* reasoning." You add, "Even if this reasoning were more plausible, (reasoning which Doctor S. had not employed) the fact, that it is not founded on observation, (the very thing, and the only thing, on which it is founded,) is sufficient to take from it all scientific value."

Having thus arrived at the satisfactory conclusion, that No. 2 was founded on what in truth it was not founded on, to wit: "*a priori* reasoning," you say, "but I am willing to meet Doctor Sewall on this ground," ground on which he has not entered, and on which the truthfulness of none of his drawings rests; so that this reasoning of yours, however plausible, on a question of fact, might, without any imputation of neglect on my part, be passed by in silence.

It may not, however, be impertinent to notice some of the steps (taken on this ground of *a priori* reasoning) where you have offered

to meet Doctor Sewall, by which you arrive at your conclusion, in a way much more satisfactory yourself, than convincing to me.

You say, "I take it, this (No. 2) is intended to represent a stomach slightly injected with blood. It is probable, *though I do not know of any experiments on man directly proving it*, that alcoholic drinks, when introduced into the stomach in moderate quantities, produce injection, and redness of the mucous membrane, *similar to that produced by food*." And you further say, "The injection of the stomach during digestion, (and you add, though, as you admit, without the knowledge of any experiments to authorize the addition,) or from the action of alcoholic drinks, is not a state of incipient disease, or inflammation, any more than the suffusion of the cheeks in blushing, is a state of commencing erysipelas."

Now, if you do not know of any experiments that go to prove that the effects of food, and alcoholic drinks on the stomach *are similar*, (and you affirm that you do not,) how can you affirm, that because the former is not a state of incipient disease, that therefore the latter is not?

Now, to deduce from the fact, that alcoholic drinks produce "an injection and redness of its mucous membrane, *similar to that produced by food*," a fact, the truth of which, though probable, you admit, "*you know of no experiments on man directly proving it*." I say, to deduce from this unknown similarity of effects between *food and alcohol* on the stomach, that the state induced by the latter, as well as the former, is a healthy state, seems to me to be a kind of *a priori* reasoning, very similar to that of proving, that because plate No. 2 was "not founded on a series of observations, (the very thing on which it was founded,) that consequently it must be founded on *a priori* reasoning." As, however, the reasoning in the one case is known to be untrue, it is not very certain that it is not so in the other; at any rate, the reasoning from premises not known to be true, seems to me "sufficient to take from it all scientific value."

You seem to think that plate No. 2, "allowances being made for coarseness of execution, and defect of finish," would answer as the symbol of the healthy stomach during digestion. Now, I ask, how do you know that the very "coarseness of execution and defect of finish," to which you allude, as a defect in this print, for which allowance must be made when considered as the symbol of the healthy

attributes which render it the true and appropriate symbol of the diseased stomach under the incipient action of alcoholic poison, as Doct. Sewall affirms it to be? Or how can you, who profess *not to know* what effect alcoholic drinks in small quantities *do produce* on the stomach, consider yourself better qualified to inform the public what effect they *do not produce*, than Doctor Sewall is, who professes to know, and whose knowledge he affirms "to be derived from pathological researches for upwards of thirty years," (about the period of your entire life,) "during which" (he says) "I have enjoyed many opportunities of inspecting the stomach of the drunkard after death, in the various stages and degrees of inebriation," and who adds, "these drawings will be found to present a pretty accurate delineation of the principal morbid changes produced upon that organ by intemperance—changes which are eminently worthy of being brought to the view of the unsuspecting, and which I should hope might have some effect in deterring the temperate from the use of alcoholic poison."

I am aware, as you affirm, that the transient and changeful "suffusion of blood in blushing is not a state of commencing erysipelas," or of any other cutaneous disease. But that it follows from this that the permanent rum blossoms on the nose of so many of Doctor Sewall's temperate drinkers, is not a state of incipient disease, is what I cannot assent to; for if any analogy is to be traced between the stomach of such a temperate drinker and any tint on the human countenance, it is to be traced between the rum blossoms stereotyped on the nose by alcohol, and not the transient blush on the maiden cheek of modesty—a blush, which, indeed, suddenly changes the hue on such a cheek, but, be it observed, as suddenly vanishes; whereas, the rum blossoms on such a nose remain as unchanged as the nose on which they flourish; which nose carries them about, displaying on all occasions, in all weathers, and in all seasons, its livid rugged surface before the averted eye of the abstinent beholder.

In acquainting your readers with "the immense labors necessary to arrive at any satisfactory conclusion on this point by means of direct observation," you remark, "how rare it was, until within a few years, to find any person who had practised abstinence from all alcoholic drinks." This, as seems to me, is a pretty good reason why the difference be-

tween such a temperate drinker's stomach as Doctor Sewall describes, and the stomach of an entire abstinent man has been so little attended to previous to the 19th century; and a pretty good reason, also, why it has been so much attended to since. Though the pathology of drunkenness might, the pathology of temperance could not so well have been written till the century in which we live; and, however it may be regretted by us, who take so deep an interest in both pathologies, that the latter was so much neglected previous to the commencement of the 19th century, we may both console ourselves with the anticipation that since it has finally been undertaken, it will, before that century closes, undergo a pretty thorough examination. But I will not any further pursue the steps you have taken on the ground of a priori reasoning, on which ground Doct. Sewall had not rested the truthfulness of his plates, but on which you express your willingness to meet him.

As to all that you have said in relation to the difficulty of arriving at the truth on the question of the effects of temperate drinking, I have little to object—and as to what has been said by the authorities you introduce in relation to the healthy stomach, still less.—The doctrine laid down by these authorities, is not, so far as I can perceive, at variance with any thing in my first published reply in the pamphlet form to which you allude, and it accords, as seems to me, entirely with what was stated in one of the letters printed in connection with the same, so that this part of your communication, (and the larger part,) will require no farther comment.

And as you yourself rather object to the use made of Doctor Sewall's print of the temperate drinker's stomach than to the print itself, so it is to the use made of the authorities you have quoted, rather than to the authorities themselves, that any farther objections which I may make are applicable.

As a conclusion from these authorities, you say, "Here then is the truth of the matter.—During the excitement produced by food or by alcoholic drinks in moderate quantities, the stomach is injected with blood, and when the cause ceases to act, it resumes a pale appearance."

Now, I am unable to perceive that any truth, not previously known and admitted, is here brought to light. Among the documents in my published answer, before referred to, the principle here contended for is explicitly

recognized as a well known fact, and in the words following: "It is, I believe, an admitted fact among physiologists, that the veins of the stomach collapse when it is empty, and become more or less distended when it is again supplied with food." Concerning this fact, therefore, we have no dispute—here is common ground.

Reasoning, however, from the above fact, you say, "I do not, therefore, admit the correctness of this plate, for it conveys the impression that this is a morbid state produced by drinking. On the contrary, I maintain, and I trust I have demonstrated, that the stomach of the abstinent man will produce the same aspect during digestion," &c.

The force of this "demonstration" I have not been able to feel. Because the stomach, when empty, "is pale, or at most slightly rose colored," and "during the process of chymification acquires a considerable degree of redness," as your authorities affirm, and as I admit, does it follow with the certainty of demonstration, that such use of alcohol, or other poisons contained in intoxicating liquors, as Dr. Sewall describes, does not, therefore, produce an unnatural and morbid inflammation in that organ—an inflammation in that organ distinguishable from the healthy degree of redness, which your authorities call "a considerable degree of redness;" or does it follow, on that account, that plate No. 2 does not, at least with tolerable accuracy, indicate that state of morbid inflammation? I cannot perceive that this does follow.

Your words in relation to this very singular, and, as seems to me, rather inconclusive demonstration, are, "I maintain, and I trust I have demonstrated, that the stomach of the abstinent man will produce the same aspect during digestion." The same as what? Why the same as the "state produced by drinking;" and yet you do not know what the state produced by drinking is, though you are willing to admit it is similar to that produced by digestion. Your words I again quote: "It is very probable, though I do not know of any experiments on man, directly proving it, that alcoholic drink, when introduced in the stomach in small quantities, produce an injection and redness of its mucous membrane similar to that produced by food;" and yet you maintain and think you have demonstrated that the two are alike.

You admit Dr. Horner (who furnished the print of the healthy stomach,) to be the high-

est authority the country affords; and still you think a second print necessary, to wit, one to represent the healthy stomach in a state of activity, the other in a state of repose; and you seem satisfied even with print No. 2, provided only, that the "temperate drinker and wine-bibber" can be saved harmless, and the print made a symbol, not of disease, but of health.

Now if it be true that to represent different states of the healthy stomach, different prints of it are appropriate, it would seem to me to be equally true that to represent different states or stages of the diseased stomach, different prints were equally appropriate; the one to represent the stomach in the state of incipient disease, as it exists in the "temperate drinker and wine-bibber;" the other in the state of confirmed disease, as it exists in the confirmed drunkard.

Whether the stomach is more florid when supplied with, than when destitute of food, is not the question; for this is a fact admitted on both sides, as will be seen by the answer, in a pamphlet form, already referred to; but whether that intenser redness, and that greater distension of the blood-vessels, which is indicated in plate No. 2, and which is assumed to be produced by such use of intoxicating liquors as is specified by Dr. Sewall in his definition of a "temperate drinker and wine-bibber;"—I say, whether this intenser redness and greater distension of the blood-vessels, is a condition of health, or incipient disease, and of disease of the same kind (differing only in degree,) as that which exists, and will become more fully developed in the stomach of the confirmed drunkard, is the question. That it is, I understand Dr. Sewall to affirm, and you to deny. Which is the sounder opinion, is now to be considered. Previous to the consideration of which, however, it may not be impertinent to remark, that it does not seem to me that you have either fully or fairly stated what Dr. Sewall himself has said in relation to No. 2, and the manner in which the disease it is intended to indicate, is originated.

You say, "Dr. S. attempts to explain the manner in which disease of the stomach originates in the temperate drinker, by referring to the effects of irritants on other tissues; and after making a brief, and, as it seems to me, an incomplete quotation in confirmation of what you have said, you add, "The drift of this argument would seem to be, that because

alcohol, when applied to the eye, causes an inflammation of that organ, it will therefore cause an inflammation of the stomach, when used habitually." And though this, in connexion with what follows, may appear satisfactory to the prejudiced and hasty reader, I cannot think it will so appear to the considerate and impartial one.

Doctor Sewall does not, as I understand him, attempt to explain as stated, "the manner in which diseases of the stomach originate in the temperate drinker, by referring to the effects of irritants on other tissues," but by referring to a general, and as he expresses it, "a well known law of the animal economy." His words are: "this effect (the disease of the stomach in question) is produced upon the well known law of animal economy, that an irritant applied to a sensitive texture of the body, induces an increased flow of blood to the part." Will not Doctor Hun admit this to be a law of the animal economy? Doctor Sewall adds: "The mucous, or inner coat of the stomach, is a sensitive membrane, and is subject to this law." Will not Doctor Hun admit this? Doctor S. proceeds: "A practical illustration," of what? Not of "the manner in which diseases of the stomach originate," but "a practical illustration of this principle, (to wit: that an irritant applied to a sensitive texture of the body, induces an increased flow of blood to the part,) is shown by reference to the human eye." Will not Doctor Hun admit this? And finally, will he not admit, "that if a few drops of alcohol or any other irritating substance, be brought in contact with the delicate coats of the eye, the net work of fine vessels which were before invisible, become distended with blood, and easily seen. If this operation be repeated daily, as the temperate drinker takes his alcohol, the vessels become habitually increased in size and distended with blood."

And if Doctor Hun will admit this, then it seems to me, he might have spared, without any loss of courtesy to Doctor Sewall, or respect for the understanding of his readers, the inuendo implied in the following interrogation: "Is Doctor Sewall, then, ignorant of the fact, that some irritants act differently on different tissues?" As the Doctor has not made it apparent by any thing he has said above, that he is ignorant of this important fact, it cannot fairly be assumed that he is so. For because, "tears are bland and soothing to the delicate membrane of the eye, but inflame and

excoriate the cheek," I do not perceive that the "law of animal economy," mentioned by Doctor Sewall, is any the less a law of that economy on that account. If "tears are bland and soothing to the eye," then to the eye tears are not an irritant; but because they are not, the law concerning irritants, when applied to a sensitive texture, is not annulled. And if alcohol be an irritant to the stomach, it is not a whit the less so because tears are not an irritant to the eye. It is admitted, as you affirm, "that it does not follow that because alcohol irritates the eye, it will irritate the stomach in the same degree." Just as little, however, does it follow, that because soup is harmless to the stomach, therefore, alcohol is also.

And however the counsel given in the following words: "But if Doct. S. will vary his experiment, and introduce a few drops of soup into the eye every day, he will soon find that it will produce an inflammation, though it will be perfectly harmless, if not soothing to his stomach," I say, however, this counsel may be considered by such *temperate drinkers and wine bibbers* as have become familiarized to the stimulus of sling, as the chewer is to that of tobacco, I say, however, this counsel of a temperate drinking Doctor to a teetotal Doctor, may be considered by temperate drinkers, as a pretty good hit, (as indeed it is) still, as a pathological argument, I do not think it remarkably conclusive; and if any lover of experimental philosophy, is disposed to settle this pathological question, about which these doctors disagree, and to ascertain for himself, whether soup and alcohol are equally bland and soothing to the stomach, let him try the experiment. And having first held a spoonful of soup in his mouth a few minutes, let him slowly pass it down his œsophagus into his stomach, and note his sensations; this done, let him take a spoonful of alcohol in his mouth, and having held it there the same length of time, let him pass that also slowly down the same channel into his stomach, and again carefully note his sensations; and having done so, if he do not find some little difference between the two successive classes of sensations, and in one word, if he do not find that the alcohol is a little less bland and soothing to his mouth, œsophagus, and stomach, than the soup, why then, I can only say in the first place and negatively, that he is no teetotaler; and in the second place, and affirmatively, that he is a temperate

drinker—and not only a temperate drinker, but also a pretty fair specimen of such a "temperate drinker and wine bibber," as is indicated by No. 2, and that the healthy sensibility of the mucous membrane of his own mouth and throat, as well as stomach, if not yet destroyed, is in a pretty fair way to become so—for be it remembered, that the mouth, throat and stomach, is covered with the mucous membrane, and hence, however inconclusive an argument drawn from the effect of brandy on the eye, to its effect on the stomach, an argument from its effect on the mouth to its effect on the stomach, is certainly less inconclusive.

You say, as before stated, "Now, it is very probable, though I do not know of any experiments on man directly proving it, that alcoholic drinks, when introduced into the stomach in moderate quantities, produce an injection and redness, similar to that produced by food."

Had you enjoyed the advantages Doctor Sewall enjoyed, of observing the experiments of Doct. Beaumont, on the exposed stomach of St. Martin, though you might not have found evidence of precisely what you state, you might have found evidence that alcoholic drinks, when introduced into the stomach in moderate quantities, did produce, not indeed, "an injection and redness, similar to that produced by food, but an injection and redness similar to that produced by eating voraciously or to excess. Among the morbid changes produced in the stomach of St. Martin, "were inflammation—apthous patches on the mucous surface—from some of which exuded small drops of grumous blood. The free use of ardent spirits, wine, beer, or any intoxicating liquor, when continued for some days, has invariably produced these changes. Eating voraciously, or to excess; swallowing food coarsely masticated, or too fast, the introduction of solid pieces of meat suspended by a cord, or muslin bags of aliment secured in the same way, almost invariably produce similar effects, if repeated a number of times in close succession."

Now, St. Martin was no drunkard, and yet the intoxicating liquors which he occasionally made use of for several days, invariably produced these morbid changes; whereas the other abuses named did not invariably produce the same effect. This certainly looks as though intoxicating liquors were not so very "harmless and soothing" to the sto-

mach, since such liquors more invariably produce the morbid changes in question, than eating voraciously or to excess, or swallowing food coarsely masticated—or even than pieces of meat suspended by cords, or muslin bags of aliment suspended in the same way.

You say, "Mr. Delavan, in his reply, comes to the aid of Dr. Sewall, and continues his pathological reasons as follows: 'If it be a law of animal economy that an irritant applied to a sensitive texture of the body induces, an increased flow of blood to the part; and if it be true that alcohol itself is poison, and that other, and intenser poisons are often, if not usually mingled with it in these intoxicating liquors, of which the class of persons included in the above description drink, is it to be believed that no visible evidence of the ruins which the daily use of such poisons are calculated to impress on the delicate organ of the stomach should be apparent, through any of the successive stages of inconsiderate indulgence, till the drinker becomes a drunkard. And then, that suddenly, and in all its aggravation, the footprint of approaching dissolution develops itself.'"

On this quotation you make the following comment: "In the latter part of this paragraph is a sophism which is constantly repeated on this subject, and which I wish to expose. It is said, there must be some intermediate steps between the healthy stomach, and the diseased stomach of the confirmed drunkard, and hence it is concluded that the first traces of disease are to be sought in the temperate drinker. Now, there is undoubtedly a gradation of disease produced by alcoholic drinks, but the gradation commences, not with the temperate use of these drinks, but with the abuse of them. In drinking, as in all other indulgences, there may be every degree of excess, and the physical evils will be in proportion to the excess."

"The stomach and the other organs are in the highest degree of disease in the confirmed drunkard, and there is every shade of disease from this point, down to the slight derangement produced by an occasional excess; but so long as the person avoids excess there will be no disease."

Now be it even so—still permit me to ask where is the line at which, according to your theory, temperate drinking ceases and excess begins? Is it within or without that drawn by Dr. Sewall in defining "the temperate drinker and wine-bibber?" If within, then dis-

ease has commenced where Dr. Sewall says it has, and No. 2 is still safe. If without, how far without? How much more than "his glass of gin sling in the morning and his toddy on going to bed—or his two or three glasses of Madeira at his dinner," (which would seem to us teetotallers a pretty fair allowance,) may a man drink according to your "pathology of temperance," and yet keep quite short of excess and secure from disease? On the reading of Dr. Sewall's Pathology of Drunkenness, I find no difficulty in ascertaining what temperate drinking is, and what print indicates the state of the temperate drinker's stomach, viz: No. 2, but on reading your "pathology of temperance," I have not been able to ascertain where excess begins, or what is the tint of the stomach during the incipient stage thereof.

I had supposed before reading your "pathology of temperance," that there were some things, to abstain from the use of which without raising the question of excess, would be quite safe, because there were things deleterious to man, and which had therefore better not be used at all; such things for instance as arsenic, nux vomica, and even alcohol. And why not alcohol? or what is alcohol, that its use at all should find a place in the "pathology of temperance?" Pure alcohol coagulates the animal fluids, and hardens the solid parts. It instantly contracts the extremity of the nerves it touches, and deprives them of sense and motion, easing them of pain, and destroying their use. Received, undiluted into the stomach, it produces the same effects, thickening the fluids, contracting all the solid parts, and destroying, at least for a time, their use and office. Vinous spirits, therefore, may be usefully applied, in small quantities, properly diluted, in disease. But if this be continued, they act as a peculiar poison." (Dubrunfaut and Jonas, translated by Sheridan, 4th edition, London, 1830, page 200.)

Now I ask, how much of such may poison be taken, and how frequently according to the "pathology of temperance," without trenching on the forbidden limit of "excess?"

You say, "now let there be no quibbling here." I reciprocate the saying, "let there be no quibbling here,"—and in the spirit of frankness, ask what you mean by "temperate use," what by "abuse," and what by "excess?"

You say, "there is undoubtedly a gradation of disease produced by alcoholic drinks,

but the gradation commences, not with the temperate use, but abuse—so long as a person avoids excess, there will be no disease.”

Now, this may be literally and scientifically true, and yet contain a sophism that will prove fatal to many a reader. Strictly speaking, I admit that the terms “temperate use” are not well chosen, to express a use that is *injurious*, and that “excess,” the term you employ—or *excessive use*, are terms much more appropriate. I do not, however, understand this to be a dispute about terms. I use the terms “temperate use,” in their popular acceptance—and that there might be no mistake in the sense, Doct. Sewall uses the term “temperate drinker” in connection with No. 2. He has himself defined those terms.

Now, in your argument concerning No. 2, do you use the terms “temperate use” in the sense Doct. Sewall uses the terms “temperate drinker?” If you do not, the dispute is at an end—and if you do, when you say “disease commences not with temperate use, so long as a person avoids excess there will be no disease,” then, and in that case, you differ in opinion, as seems to me, not only from the truth, but also from many of the oldest and ablest physicians of the age, as well as from Dr. Sewall himself.

Doct. Cheyne says that “should ten young men begin at twenty-one years of age, to use one glass of two ounces (of ardent spirits,) a day, nine out of ten, would shorten life more than ten years.”

Doct. Harris says that “the moderate use of spirituous liquors has destroyed many who were never drunk.”

Doct. Frank says that “their tendency, when used, even moderately, is to induce disease, premature old age, and death.”

Doct. Emlen, that “all use of ardent spirits is an abuse.”

Doct. Kirk, that “men who were never considered intemperate by daily drinking have shortened life; and that the respectable use of this poison kills more than even drunkenness.”

I might quote authorities to the same effect, to an indefinite extent; but it is unnecessary. That your opinion is at variance with the opinion of a host of distinguished men, with whom to be associated Dr. Sewall may well feel satisfied, is not to be denied; nor is it to be denied that, considering the advantages he has enjoyed, and the length of time in which he

has been engaged in the examination of this question, that his own opinion, as expressed in his Pathology, and subsequently expressed in his letter, which I am authorized to use, is deserving of great weight. He says, in his Pathology, “*If the morbid effects of intemperance are in some degree various in different individuals; if they are not developed with the same degree of power and rapidity, in one case as in another, it is nevertheless true that alcohol is a poison, forever at war with man’s nature, and in all its forms and degrees of strength produces irritation of the stomach, which is liable to result in inflammation, ulceration and mortification, a thickening and induration of its coats, and finally scirrhus, cancer and other organic affections; and it may be asserted with confidence that no one who indulges habitually in the use of alcoholic drinks, whether in the form of wine, or the more ardent spirits, possess a healthy stomach.*”

And would you carry back your recollection for a few years, and survey the circle of your former, as well as your present acquaintance, you would, I apprehend, meet with no small amount of evidence, that such temperate drinking as that with which this discussion is concerned, is at least unfavorable to health, to life, and that whether it fixes its morbid impress or not upon the stomach, it fixes it at least upon the countenance in characters expressive of evil only—and characters known and read of all men.

You say, “I deny that there exist in the records of medical science, any observations proving that there is a difference between the stomach of a temperate drinker, and the stomach of an abstinence man, or that an incipient disease, however slight, is established in the stomach of the former; and I defy Mr. Delavan to find any pathologist of authority, who will say, if two men, one a temperate drinker, and the other an abstinence man, die suddenly from accident, he can by any examination of the two stomachs determine to which person each belonged.”

Though not much acquainted with “Pathologists of authority,” I have no way but to meet this defiance in the best manner I can; and I hope to be able to find some authors which even you will admit to be Pathologists, of at least reputable authority.

The celebrated Broussais expressly declares in his History of Gastrites, that “by the repeated use of alcohol, heating wines, &c. an

inflammatory modification may be kept up in the capillaries of the mucous membrane of the stomach, which will ultimately degenerate into Phlogosis."

Doctor Gordon, physician to the London Hospital, in his testimony given before a committee of the House of Commons, appointed to inquire into the effects of intemperance in the United Kingdom, declares that "he had examined the bodies of large numbers of 'temperate drinkers,' and that the practice of sipping spirits, or tasting it daily, in small quantities, induces that chronic inflammation of the coats of the stomach which constitutes dyspepsia; and that most of the bodies of moderate drinkers, which, when in Edinburgh, he opened, were found diseased in the liver; and that these symptoms appeared also in bodies of temperate people, which he had examined in the West Indies." And so far as diseased livers are concerned, Sir Astley Cooper confirms what Doct. Gordon says. His words are—"No person has a greater hostility to dram-drinking than myself, inasmuch that I never suffer any ardent spirits in my house, thinking them evil spirits; and if the poor could witness the white livers, the dropsies, the shattered nervous systems which I have seen, as the consequence of drinking, they would be aware that spirits and poisons are synonymous terms."

Besides the correspondence contained in the appendix, there is other and important testimony to the same effect in my possession, which I may on some future occasion lay before the public. In the mean time, I trust the accompanying authorities will suffice to answer the demand made for their production; and, after examining the same, you will, I trust, feel less assured that Dr. Sewall is altogether unsupported by professional authority, in the opinion he entertains as to the "difference between the stomach of a temperate drinker and the stomach of an abstinence man"—as to the establishment of "an incipient disease, however slight, in the stomach of the former," and also as to that other fact, to wit, the "gradation of disease produced by alcoholic drinks," which both admit to exist. Whether that "gradation commences (as he affirms, and you deny,) with the temperate use of these drinks," I repeat it, after examining the authorities quoted, you will, I trust, feel less assured that Dr. Sewall is unsupported by professional authority, even though you may not be less able to "help feeling ashamed to

have spent so much time about so ridiculous a matter."

You ask, in seeming vindication of the fitness of this shame, "What have I been doing? Why, I have been proving that the habit of temperate drinking, which has prevailed at all times and in all places, does not produce diseased stomachs."

Whether the habit of temperate drinking, which I admit has prevailed pretty extensively in our world, "produce diseased stomachs" or not, I think that the universality ("all places,") which you claim for the habit, rather exaggerated. To say nothing of Nazarines and Rechabites, I have always understood that somewhat more than a moiety of the human race did not indulge at all in the use of intoxicating liquors, being restrained therefrom either by religion or philosophy, or by that innate abhorrence for alcohol (kindly implanted by Providence,) which, like the abhorrence for tobacco, is felt by almost all men, till, in violence to nature, it is overcome by practice; and, as I think your statement in regard to the universality of this habit is rather exaggerated, so I think it is also somewhat exaggerated in regard to its perpetuity, ("all times.")

Temperate drinking, at least that kind of temperate drinking now in debate, so far as one ingredient in it, to wit, distilled liquor, is concerned, is of rather modern origin; and so far as most, and often all the other ingredients in it, (to wit,) drugs are concerned, is of still more recent origin—a novelty which originated (though not alluded to by you among the "follies" of that period, on that account,) in that same 19th century in which total abstinence, its antagonist agency, originated, to which you have alluded. So that the mantle of antiquity, which you have endeavored to spread over the drinking usages of modern indulgence, will not avail to cover from public scrutiny the physical and moral evils with which those usages cursed the first quarter of that century; cursed it by corrupting the virtue, paralyzing the energy, and wasting, by delirium tremens and other fatal maladies, the population of different countries, and which must, in their frightful progress, have destroyed all that was cheering in liberty, sublime in morals, or valuable in existence, had not total abstinence, in the good providence of God, been brought forward to the rescue.

So that however venerable temperate drinkers of the fruit of the vine may be, and however

sanctioned by the "highest authority recognized by the Christian world," and however free from disease the stomach of patriarchs and prophets and saints may have been in olden times, it does not follow that the severer irritants of the brew-house and the still, aggravated as they recently have been by the intenser poisons of the drug-shop, have left the "temperate drinker's" stomachs with which they have come in contact entirely unscathed. Nor does it follow, that total abstinence from such beverage deserves to be ranked where you have ranked it, among the "follies of this age of charlatanism, where the wildest conceits are most voraciously swallowed by a multitude, greedy of some new absurdity."

Nor can I believe, when you shall have more fully considered what total abstinence has done for the risen, and is doing for the rising generation; when you shall have considered the crimes it has prevented, the guilty it has reclaimed, the miserable it has comforted, and the fallen it has raised up from brutality to manhood, and restored to their friends and their country; and when you shall also have more fully considered how many statesmen and patriots, as well as philosophers and divines it is numbering among its advocates, and how it is gathering to its support and furtherance, the wise and great and good of different nations—and how it has been, and to some extent still is scoffed at by the vulgar and the vile; I repeat it, I cannot but think, when you shall have more fully considered these things, that you will yourself be convinced that you have spoken of the kind of "temperate drinking" in question, in terms of somewhat greater comparative respect, than it truly deserves, and of "total abstinence" in terms of greater levity and contempt than befitted the subject, the occasion, the number and character of the persons concerned, or the age and standing of the writer.

Be this, however, as it may, and though total abstinence should still continue through mistake, to be opposed by some good men; and through hatred, to be scoffed at by some bad men; it will, notwithstanding, live in the hearts of the people; and having conferred a signal blessing on the present generation, will be remembered with gratitude by the generation that will follow, to which, increasing as it is sent forward, that blessing will be transmitted.

Yes, derided as the institution of total ab-

stinence may be, it is an institution that will remain to posterity among the honored landmarks of the age we live in. It will continue to stand forth beside the Bible Society, and Tract Society, and Missionary Societies, and those other monuments of goodness, which have already risen, the glory of that same 19th century, of which you speak in terms of such disparagement.

For a time, indeed, it had to struggle with opposition; but it has overcome, to a great extent, that opposition; it has removed prejudice, conciliated the affection of the poor and of the profligate, by the manifest benefit it has conferred on both.

It has attracted the attention of potentates; princes have commended it; and at length the Church, in the benevolence of whose religion it originated, in obedience to the great law of Christian Love, has come to its aid, spreading the ægis of her consecrated mantle over the high and holy enterprise of delivering the world from the curse of drunkenness, by inducing its population to relinquish the drunkard's drink.

Already, millions in America have felt the wealthful influence of this movement; still more millions in Ireland; nor has this influence been unfelt by other islands, or the seamen navigating distant seas.

What statesman is there, what patriot, with all his plans of finance and political economy, who has showered such blessings on so many wretched individuals, on so many sorrow-stricken families, as Father Mathew has showered on the dwellers in the mud-built cottages of suffering Ireland; suffering much from the oppression of her rulers, but more from the sorer oppression of her drinking usages?

Renovated by the agency of this benevolent and wonderful man, an upward impulse has been given to the humblest dwellers on that Emerald isle. Peace and cleanliness, and industry, have appeared among its population; a desire for knowledge has re-appeared; the number of scholars in her schools has increased; the number of poor in her poor-houses diminished; her drunkards have disappeared; her riots ceased; her criminals diminished; and in some instances, her prisons closed. While tears of joy glisten in the eye, and remain undried on the cheek of multitudes, once vile and wretched, but now reformed and happy, who stand forth as trophies of total abstinence, among those men of mercy, who, though in no danger of inebriation themselves,

have, in the spirit of apostolic self-denial, come forward to enroll their names among those pledged "Not to drink wine, or any thing whereby a brother stumbleth, or is offended, or is made weak." Till at length this record contains, in Ireland alone, the names of five millions two hundred thousand honored individuals, who have abjured forever all use of those intoxicating poisons, which have filled this world so long and with so much guilt and misery.

I close this communication as I began it, with the expression of a hope that I shall yet see talent so full of promise devoted to the furtherance of a cause, in the disparagement of which, as seems to me, they have, by some mistake, in the present instance, been unhappily employed.

I am, dear Sir,

Truly your friend,

EDWARD C. DELAVAN.

Albany, March 23, 1843.

APPENDIX.

Containing testimony of a number of distinguished physicians, &c.

I have looked carefully into your work on the Pathology of the Stomach, as influenced by alcoholic drinks, and think very highly of the fidelity with which you have portrayed its characters. I trust that the very general and just extension of it, indicated by the magnitude of its editions, will add another check to the many now existing against the cause of intemperance. I, of course, cannot feel less than highly gratified at your considering any poor contribution of my own to medical science, as worthy of a place in your excellent production.

Your friend,

W. E. HORNER.

THOS. SEWALL, M. D.

It was not until after I had ascertained from Dr. Hun, and received (unsolicited by me) a part of his correspondence with Drs. Sewall, Warren, Horner, &c., that I was aware of the existence of such correspondence. I did not write or consult with Drs. Sewall, Mott, Horner, &c., relative to the defence of the plates, or the work, or caution them or any of the gentlemen applied to by Dr. Hun, relative to any application they might receive from any one; after I ascertained, however, that Dr. Hun had written to these gentlemen, and after sending them my long reply to the anonymous writer, who suggested or originated this controversy, I wrote a short note to Messrs. Sewall, Warner, Mott and Horner, soliciting copies of the correspondence (if any) not already sent me. This whole correspondence,

with what has already been written, or what may yet be written on this important subject, I hope to place before the public hereafter. In the mean time, I feel at liberty to use the following letter from Dr. Horner, as it is directed to me personally.

Philadelphia, March 11, 1843.

DEAR SIR—I have to acknowledge the receipt of yours of the 7th instant, as well as your defence in the Albany Evening Journal of February 18th, of Dr. Sewall's plates. I regret that a generous and disinterested benevolence like yours should find itself harrassed by more than the intrinsic difficulties of the subject you have selected as the theatre of your labors. It is, however, not a new case; and I am satisfied that you will view it as one of the contingents of humanity; there are, alas, too many instances of it constantly under our eyes!

I send, as you desire, a copy of Dr. Thomas Hun's letter of February 3d, 1843, to me; not having a copy of my reply to him of the 13th of the same month, I will narrate the substance of it.

Plate I. Of Dr. Sewall's work, I consider just.

Plate II. Had not met with the pathological state under circumstances represented, but supposed it preliminary to that of plate III.

Plate III. Had seen in my own dissections to be just.

Plate IV. This stage I had not seen from drunkenness, but had met with it in high gastric fever.

Fig. 2d. Pl. I. Had no experience to adduce, that cancer was not confined to drunkards, but we must admit a tendency to it from their habits.

That I had not seen the Colossal Plates, and therefore had nothing to say concerning them.

I am very respectfully,

Your ob't ser't,

W. E. HORNER.

EDW'D C. DELAVAN, Esq.

Boston, Feb. 22d, 1842.

My Dear Sir:—Nothing can be better adapted to operate on the minds of the unfortunate victims of intemperance, than your excellent representations of the drunkard's stomach. I have long desired that the public could see in their true colors the physical changes wrought by alcoholic drinks on the human body. The vivid pictures of Professors Horner and Sewall have accomplished my wish.

With great respect,

Your friend and servant,

JOHN C. WARREN.

E. C. DELAVAN, Esq.

The colossal drawings have been spoken of as mere caricatures. I can assure the public that I neither spared expense or attention to render them as perfect representations of the originals as possible; and considering that they are enlarged to nine times, I must be permit-

ted to think them very correct in every essential particular. Very many distinguished physicians have made this observation to me, "They answer entirely the object for which they were prepared." I furnished the first set finished to Dr. Warren, of Boston. After receiving them, and lecturing from them, and comparing them with his "*dried and wet preparations of the human stomach*," he wrote the following letter to Dr. Sewall, which letter I have been permitted to publish :

Boston, June 15, 1842.

MY DEAR SIR: A few days since, Mr. Delavan had the goodness to show me the enlarged pictures he has had made of the drunkard's stomach. I have compared them with the original representations, and find them to be correct copies of those formerly published, with some additional. I have also compared both sets with dried and wet preparations of the human stomach, and find them to convey satisfactory ideas of the natural form of this organ, and of the unnatural changes produced by disease. It fortunately happened that on the very day I first saw the magnified views, I was to give a lecture on the disease of the stomach. I immediately obtained permission of Mr. Delavan to employ them in my lecture, and exhibited them with great satisfaction to a large number of gentlemen of the University of Cambridge, composed of the senior class, and of many resident graduates from different parts of the Union. Many of those present, received impressions which can never be effaced, and which must have a salutary influence on their future lives.

A knowledge of the changes wrought by the free use of stimulating drinks on the delicate organization of the stomach and digestive apparatus, must have a great effect in preventing the use of these articles; and when this knowledge is conveyed by a representation of the fact as it daily occurs in thousands of cases, the impression must be more vivid and durable. Your scientific labors, and the unexampled efforts of Mr. Delavan in accomplishing this important work, cannot fail to produce the richest fruits your philanthropy could anticipate. In order to effect so desirable a result, the friends of humanity should exert themselves to distribute these impressive delineations through all the colleges and literary seminaries for young people; so that every town in the United States should have one copy at least exhibited in some public place. With great respect, I have the honor to be your friend and servant,

JOHN C. WARREN.

To Dr. SEWALL.

New-York, Jan. 30, 1843.

Dear Sir:—I thank you for the pamphlet of my worthy and much esteemed friend, Dr. Sewall. It contains an admirable and faithful delineation of the appearances of the stomach of the drunkard, such as I have myself frequently witnessed. They are true to the death. You could not have resorted to a more

forcible and impressive illustration of the fatal effects of this sad and destructive vice than is here exhibited upon so vital an organ as the stomach.

The great and glorious object you have so nobly and zealously undertaken—temperance and the reformation of the drunkard—will, in my opinion, be greatly promoted by the course you have taken in the republication of this valuable tract.

Yours, truly and faithfully,
VALENTINE MOTT.

E. C. DELAVAN, Esq.

Doct. Horace Green, of New-York, late Resident and Professor of Theory and Practice in the Castleton Medical College, writes as follows :

New-York, March 8, 1843.

E. C. DELAVAN, Esq.,

Dear Sir,—I have examined attentively the plates of Doct. Sewall, which are intended to represent the effects of alcoholic drinks upon the coats of the human stomach, and from the observations which I myself have been able to make, can testify to their general accuracy in delineating "the principal marked changes produced upon that organ by intemperance."

My own opinion on this subject has been greatly strengthened by that of other physicians, who have enjoyed much more extended opportunities than myself for examining those marked conditions of the stomach which are induced by alcohol. For nearly a twelvemonth, Doct. Sewall's plates, of the size of the human stomach, have lain upon my table. They have been examined by numbers of the physicians of this city, who have casually entered my office, and in no instance have I heard any one intimate that they were incorrect delineations of those diseased conditions of the stomach, for which they are the intended representations. But on the other hand, they have been almost universally commended for their general correctness and fidelity.

Objections, I understand, have been urged by some, against the second plate, which is intended to represent the appearance of the temperate drinker's stomach. That this is one of the most important and correct representations in the whole series, I have not a doubt. Important in exhibiting the *first stage* in those morbid changes, which ultimately end in disorganized structure;—correct, for we have abundant evidence that the reiterated application of alcoholic drinks to the coats of the stomach, are inevitable in their tendency to irritate and enlarge the blood-vessels. This is substantiated by many of our most eminent pathologists.

Of the efficient aid afforded by these plates, in promoting the cause of temperance, especially among sailors, I have had some most gratifying evidences. Some time since, at the request of the President of the Mariner's Temperance Society, I had the pleasure of exhibiting these plates before the members of that association, in the Mariner's church in this city. The house was crowded with sailors, who listened with a breathless attention

to the lecture; and I am quite sure, I have never had the honor of speaking before an audience when so deep an interest was exhibited, as these sailors manifested when witnessing this ocular demonstration of the deleterious effects of alcohol upon the coats of the human stomach. I remain, sir, your ob't serv't,

HORACE GREEN.

Extract of a letter from Dr. Sewall to a Physician of this city, a copy of which is before me.

"You ask upon what observation the stomach of the temperate drinker was made? I answer, that all the plates were drawn from the observation of nature, as exhibited in my dissections, and of cases which came under my own notice, as stated in the work, and if the testimony of such men as *Horner, Mott and Warren*, does not establish their correctness, I need not expect to satisfy the community, although I have the additional testimony of some of the most distinguished of the British physicians, who say 'they are entirely accurate and faithful to nature.' I am not surprised that the stomach of the temperate drinker should be singled out, and that it should have given such deep offence. I know that with a certain class, this is a delicate and tender point, and the plate presents to them a painful, a revolting spectacle; and if I could in justice to the cause of truth and humanity, have spared the feelings of the temperate drinker, I would have done so; and even now, if he can make himself believe that there is no intermediate pathological state between the healthy stomach and that of the confirmed drunkard; if he can persuade himself that at one moment the stomach is entirely healthy, and that without any intermediate transition, the aggravated state of disease represented in the stomach of the confirmed drunkard, is developed all at once, then he may get rid of the annoyance, and quiet himself with the idea that though a temperate drinker, his stomach is still healthy and sound."

From Dr. James McNaughton, Professor of the Theory and Practice of Surgery in the Albany Medical College.

Albany, Feb. 28th, 1843.

DEAR SIR—Your note of Feb. 23d, has been duly received. You state that it is in contemplation to publish a second edition of Dr. Sewall's Pathology of Drunkenness, with the accompanying drawings, "and request me to state whether, if proper care be taken by the artist, lithographic copies cannot be obtained, sufficiently accurate to answer the purpose for which they were intended, and whether said history and drawings, do not, in my opinion, admit of being advantageously employed on ship board, in furthering the cause of temperance."

Since the receipt of your note, I have again carefully read Doct. Sewall's essay, and have no hesitation in giving it as my opinion, that with, or without the plates, it admits of being employed on ship board, or any where else,

advantageously in furthering the cause of temperance. Dr. Sewall describes the bad effects not only of intemperance in drinking, but also in eating, on the stomach and other organs of the body, with sufficient fidelity to serve as a warning to the unwary. The picture, taking it as a whole, is not overdrawn. No description can exceed the horrid realities consequent on drunkenness. The physical effects on the stomach of the individual, however, I do not regard as the worst effects of intemperance. The effects on the morals are far worse in my estimation. The habitual drunkard is an unhappy being, and often renders his connexions and dependents as unhappy as himself. Intemperance leads to neglect of business, embarrassment and dishonesty, and not unfrequently to the blackest crime; consequently it tends greatly to the subversion of public morals. Any thing, therefore, which can lessen this evil, is deserving of public encouragement.

For popular use, I do not consider it of much importance that the coloring of the plates, attached to Dr. Sewall's essay, should accurately represent that of the original drawings. No drawings of morbid appearance, however carefully executed, are any thing more than mere approximations to nature. I apprehend that the effects of intoxicating drinks, vary greatly in different individuals, according to circumstances. If, therefore, the effects do not always correspond with the appearances exhibited in Dr. Sewall's plates, it is certain that appearances equally unseemly, are the frequent consequences of the abuse of alcoholic drinks.

The magnified drawings, I have no doubt, can be used with great advantage, if occasionally exhibited by lecturers on temperance, but I still adhere to my formerly expressed opinion, that the hanging up in public places of either the large or small plates, will soon cease to be useful, and that it is as likely to corrupt public taste, as to improve public morals. But these are mere matters of opinion, which I have no desire to force upon others.

I remain, dear sir, respectfully yours,
JAMES McNAUGHTON.

E. C. DELAVAN, Esq.

From James H. Armsby, M.D., Professor of Anatomy Albany Medical College.

Albany, March 16, 1843.

EDWARD C. DELAVAN, Esq.

DEAR SIR:—In reply to your communication of yesterday, asking my opinion relative to the accuracy and value of Dr. Sewall's essay and plates illustrating the pathology of drunkenness, it affords me pleasure to say, that I have always regarded them as an important auxiliary to the cause of temperance.

From the strong certificates furnished by some of the most distinguished surgeons and physicians in the country, I have never entertained a doubt of their general correctness, and their adaptation to the purposes for which they were intended.

My estimation of their value has been increased by the powerful testimony of all advocates of the cause who have employed them

as a means of illustrating their lectures, or who have witnessed their practical results, not only as a check to intemperance, but as a new and additional inducement to attend temperance lectures.

Since the controversy has arisen concerning the merits of the plates, I have carefully examined them and the accompanying certificates, and have found nothing to induce me to change my previously expressed conviction of their general correctness and utility.

I have also read and examined all that has been published on this subject during the late controversy, and am still of opinion that no more powerful or efficient aid can be employed among those for whose benefit they are designed.

Wishing you every success in the great enterprise to which you have so nobly devoted yourself, I remain very sincerely, your

Most obedient servant,

JAMES H. ARMSBY.

Letter from Alden March, Prof. of Principles and Practice of Surgery in the Albany Medical College.

Albany, March 18th, 1843.

E. C. DELAVAN, Esq.

My Dear Sir:—Agreeably to your request, I herewith give you an expression of my sentiments on the subject of temperance.

About twenty-five years since I studied medicine in a new-England town, where it was about as common for the physician to be invited to take alcohol, in some form or other, as a beverage, (and in but very few instances was it declined,) as it was for him to prescribe medicine for his patients. I saw the bad effects of this pernicious practice, not only upon a large proportion of the medical men of my acquaintance, but also on all classes of community.

I can most unhesitatingly say, that, in my opinion, the holy religion of our Saviour excepted, no object or effort has contributed so largely to improve the moral condition of man; or at least, to stay the rapid progress of the fearful *physical and moral destruction*, to which an immense multitude were fast hastening, (at the time to which I refer,) as the noble cause of temperance. And I sincerely believe that, to those who have devoted their time and substance with unwearied patience and perseverance, will be, sooner or later, rewarded the gratitude of a nation, if not of the whole civilized world; and be permitted, even now, to enjoy the consolations of an approving conscience.

Should my humble name and feeble testimony be thought useful in advancing a cause so benevolent and humane, you are at liberty to publish the above.

As it regards the plates of Dr. Sewall which represent the disorders consequent on the temperate and intemperate use of alcohol, I must frankly confess that, although I have been very much engaged in former years in dissections of the human subject, yet my attention was not, nor has it been, sufficiently directed to the point in question to enable me to hazard an opinion either for or against their

accuracy. I conceive this question must ultimately and finally be decided by a large amount of facts drawn from dissection and observation.

I am most respectfully yours,
ALDEN MARCH.

From Amos Dean, Esq., Prof. of Medical Jurisprudence, Albany Medical College.

E. C. DELAVAN, Esq.,

Dear Sir,—You ask my opinion in reference to the correctness of Dr. Sewall's drawings of the human stomach as affected by alcoholic drinks, and also of their utility in advancing the cause of temperance.

In regard to the first, I can only say that I do not deem a *mere opinion* of much importance, especially if it be entertained in reference to a matter susceptible of examination and settlement as a question of fact. To my mind, however, the evidence afforded by the examinations and certificates of Professors Mott, Horner, Warren and others, is sufficient to authorize the mind to believe in their correctness, until at least some *proof* is furnished to the contrary from actual examination. All *mere reasoning* upon the subject is as inconclusive as *mere opinion*, because from either an appeal may be made to higher evidence—the actual fact as revealed by examination.—But although it were conceded that there are great difficulties in the way of arriving at that rigid certainty in delineation, which might be deemed necessary to warrant their use in giving pathological instruction in the medical profession, yet it would by no means follow, but that a sufficiently near approximation to the actual truth might be made, to render them equally as useful to accomplish the purposes for which they were designed, as if they were in all things strictly accurate.

In regard to the utility of the colossal drawings in effecting the purposes designed by them, I can entertain little doubt. Those of fastidious tastes, who are possessed of that refinement of feeling to which humbler natures can hardly aspire, may possibly perceive in them something to shock their acute sensibilities; but it should be borne in mind, that such rarely require the aid of the temperance principle to save them from the drunkard's doom, and that therefore the drawings should not have been specially designed for their benefit. The great mass of men, I apprehend, are more influenced by that which addresses their understandings through the medium of the eye, than from that which is derived from any, indeed, from all other sources. When the Roman Catholic religion sought, and successfully, to elicit the devotion of the worshipper by arraying before his eye the painting, the cross, and the saintly relic, it was asserting a fact in human nature, to which every country and every age has borne unequivocal testimony—that the eye is the great instrument through which the mind is stirred from repose into action.

I now take the liberty of giving you my opinion in a matter in which opinions may be of value, because it is a question of principle, not of fact, and therefore to be settled by rea-

soning, not by examination. I allude to the adoption of the total abstinence principle as a matter of practice. I have never yet seen the tracings of that line that divides temperate from intemperate drinking, and until they are made to appear, I am unable clearly to distinguish the one from the other. In my judgment, nothing in any degree short of this principle can ever cleanse the fountains corrupted by intemperance, or banish from the world the evils of alcohol. Those who are sincere in advancing the temperance reform must see the propriety, nay, the necessity, of placing this principle in the van of their movement, and of adhering to it in every stage of their progress.

With much respect,

Your humble serv't,

AMOS DEAN.

Albany, March 16, 1843.

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Batavia, Feb. 21, 1842.

M. TAGGART, Esq.—I cheerfully subjoin a description of the organ as developed in the present case. Pattridge hung himself upon a fence in this village on the evening of the 10th instant. It appeared in evidence that he had been a very intemperate man, and had drank several times during the day preceding his death, and had for many years indulged so excessively in the use of intoxicating liquors, that he had rarely been free from the apparent effects of the stimulus.

On dissecting, the intestines were brought to view, exhibiting a dark-red appearance, bordering on black. On cutting out a portion of them, and laying open the inner surface, the lining membrane was shown to be completely engorged with blood, and in the highest degree inflamed. This appearance was observed in nearly the whole extent of the small intestines, comprising several feet in length. The membrane dissected was found to correspond with Dr. Sewall's plate of the stomach of a drunkard after a debauch, but more highly inflamed.

I next directed my attention to the stomach, and laying open its cavity, the color of the lining membrane of the organ was seen to be changed from a pale rose tint, which is peculiar to health, to a deep red, variegated with brown spots, and much more inflamed than Dr. Sewall's plate of the stomach of the confirmed drunkard, but less so than that of the drunkard after a debauch. The coats of the stomach were also considerably thickened; and from examination of the stomach and small intestines, we have strong and conclusive corroborative evidence of the fidelity of Dr. Sewall's plates of the human stomach.

From the stomach I proceeded to inspect the liver. This viscous in health, and in a man of temperate habits, has a purple hue; but the liver in Pattridge was changed to a reddish drab color, peculiar to the drunkard's liver, and what in London is denominated a "gin liver."

The brain next demanded my attention. As I predicted before removing the skull cap, the brain, when brought to view and cut, was tough. The texture of a healthy man's brain

is soft. The change in the one before me was produced by alcohol, a strong smell of which was emitted as the brain underwent the process of dissection.

Yours respectfully,

H. GANSON.

From T. W. Blatchford, M. D.

DEAR SIR—I am delighted with your efforts to give extensive circulation to the delineations of alcoholic inroads upon the delicate membrane of the human stomach. The idea of letting the eye fasten upon a specimen, while the ear receives its description, is the true way to make upon the mind lasting impressions of any subject. Hence the anatomist, the physiologist, the naturalist, &c. &c. when practicable, always employs this method to teach their respective sciences. I rejoice that this method is being adopted in reference to the all important subject of temperance. I consider the day it was introduced as an important era in the glorious cause.

I am astonished to see that Dr. Sewall has been enabled to give such correct representations of the various stages of alcoholic disease as it affects the stomach. I have witnessed the examination of many stomachs, more or less accustomed to the use of alcoholic drinks, both in the London dissecting rooms, and in our own, and I hesitate not to say that Sewall's drawings correspond vividly with my own recollections. The world owes him a debt which time can never pay. As it regards their correctness, I fully agree in the opinions expressed by Drs. Hornor, Mott, Warren, &c. &c.

The impressions made upon the mind of our youth by these representations may be calculated to be as durable as their memories, for depend upon it, such early impressions are not easily effaced. I think the county of Rensselaer, if not immediately, will remotely acknowledge itself in this respect under weighty obligations to Wm. P. Van Rensselaer, Esq., for his munificent donation. I see by the papers that he has generously offered to defray the expenses of placing one of Sewall's volumes in every school district in the county. It is a noble gift—it will meet with a rich reward—money could not be better spent.

I trust you may succeed with our Legislature in your efforts for the neglected wanderer of the deep, and, if possible, our more neglected inland watermen. How the Legislature could appropriate a few dollars to better advantage, I cannot conceive. Make all our boatmen and sailors *totally temperate*, and I defy arithmetic to calculate the *pecuniary* benefit which would accrue to our empire state, to say nothing of higher and holier advantages. Let it be remembered, too, that the sometimes tedious leisure of the sailor makes him a peculiarly fit subject to be benefited by such a mode of instruction as you contemplate. With best wishes for the good cause, I remain as ever,

Yours, sincerely,

THOS. W. BLATCHFORD.

E. C. DELAVAN.